

U.S. Distillate Market Briefing





February 4, 2000 Energy Information Administration

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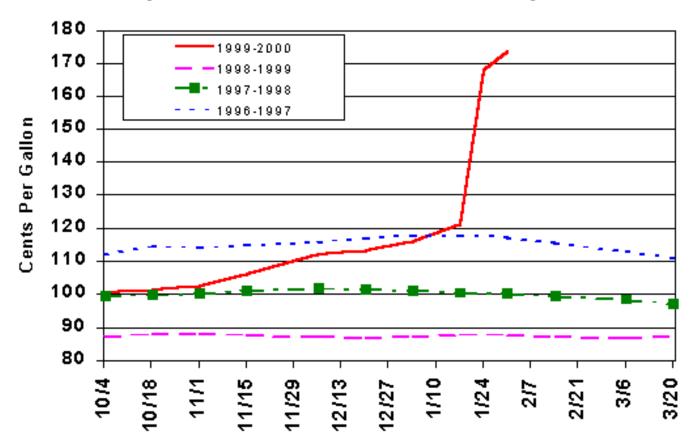
- A bout of severe winter weather, following two relatively mild winters, caught both suppliers and consumers in the Northeast by surprise. A sudden increase in demand for heating fuels met with insufficient readily available supplies, pushing prices up rapidly. While all heating fuels were affected to some degree, the biggest increases were seen in the prices for No. 2 distillate (heating oil and diesel fuel). Residential heating oil prices on January 31 were up about 7cents per gallon in the Northeast over the prior week, compared to only a 1-cent increase in the Midwest. Since January 17, East Coast heating oil prices have risen over 53 cents per gallon.
- During the week ending January 21 spot prices surged. Weather in New England was nearly 20 percent colder than normal for this time of year, which not only increased demand, but also caused supply problems, with frozen rivers and high winds hindering the arrival of new supply. This frigid

weather, on top of low inventories, pushed prices up. It was reported that utilities were buying distillate both for peaking power and, along with industrial users, to substitute for interruptible natural gas supplies, further adding to the market pressure. Finally, refinery outages at the end of the week sent more buyers into the market as local supplies were temporarily drained, and prices spiked.

- Refining capacity is adequate to meet the needs, but there will be some delay before new supply arrives -- perhaps several weeks. However, the high prices speed the arrival of product to the needed locations. Unfortunately, even when this problem is resolved, we may see recurrences as stocks are likely to stay low for the remainder of the winter.
- The low stock situation is worldwide and is not limited to distillate. It stems from what is happening in the crude oil markets. A continuing crude oil supply shortage is driving crude prices up and causing refiners worldwide to draw down stocks as the higher crude prices squeeze margins.



Residential Heating Oil Prices East Coast (PADD 1 Excl. Taxes)





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- One of the first places where consumers are feeling the impact of this winter's market pressures is in home heating oil prices. This chart shows prices for the last four winters, with this year's prices shown through January 31, the most recent EIA data available.
- The general level of heating oil prices each year is largely a function of crude oil prices, and the price range over the course of the heating season is typically about 10 cents per gallon. Exceptions occur in unusual circumstances, such as very cold weather, large changes in crude oil prices, or supply problems.
- Although heating oil prices for East Coast consumers started this winter at similar levels to those in 1997, they had already risen nearly 21 cents per gallon through mid-January. With the continuing upward pressure from crude oil markets, magnified by a regional shortfall of heating oil supplies,

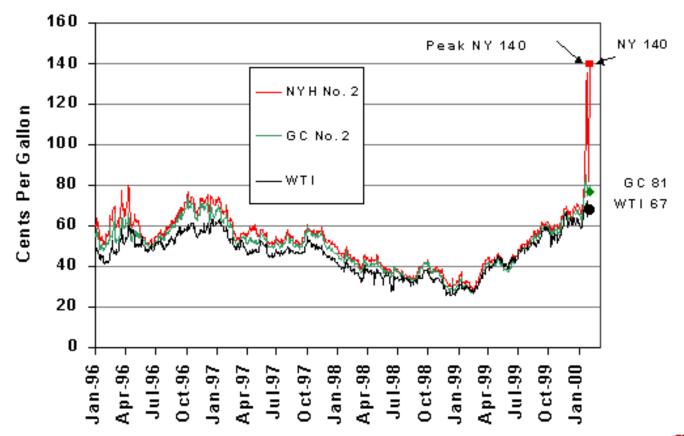
residential prices jumped significantly by January 31, with the East Coast (PADD 1) averaging about \$1.74, compared to \$1.21 January 17. The New England area is averaging almost \$1.79, up 60 cents from two weeks ago, and the Mid-Atlantic area is \$1.76, a 51-cent increase from January 17. In contrast, the Midwest averaged \$1.11 January 31, which is 7 cents higher than on January 17.

- Diesel prices are showing a similar pattern to residential home heating oil prices, and are indicating that home heating oil prices may not have peaked yet. Diesel prices in New England and the Mid-Atlantic increased 30-40 cents January 24 over the prior week, and another 13-15 cents January 31.
- Prices for other home heating fuels, including propane and natural gas, also rose as temperatures dropped.



Spot Distillate & Crude Oil Prices

(Prices thru Feb 3, 2000)





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- Retail distillate prices follow the spot distillate markets, and crude oil prices have been the main driver behind distillate spot price increases until recently. Crude oil rose about 36 cents per gallon from its low point in mid February 1999 to the middle of January 2000.
- Over this same time period, New York Harbor spot heating oil had risen about 42 cents per gallon, reflecting both the crude price rise and a return to a more usual seasonal spread over the price of crude oil.
- The week ending January 21, distillate spot prices in the Northeast spiked dramatically to record levels, closing on Friday at \$1.26 per gallon -- up 50 cents from the prior week. Gulf Coast prices were not spiking, but were probably pulled slightly higher as the New York Harbor market began to draw on product from other areas. They closed at 83 cents per gallon, an increase of 11 cents from

the prior Friday. Crude oil had risen about 4 cents from the prior week.

- Since then, New York Harbor spot distillate prices have been volatile. Prices initially peaked on Tuesday, January 25 at almost \$1.36 per gallon before a brief weather respite and signs of cargoes coming to the East Coast encouraged buyers to begin to relax. By January 31, they had fallen to 82 cents, only to rebound again as cold weather and supply delays continued. As of February 3, spot prices closed at a new peak of \$1.40, and on Friday afternoon continued to climb to \$1.77 as weather continued to hinder re-supply.
- What happened the week ending January 21 to set off this price spike?





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Notes:

Q&A's on the Recent Distillate Price Increase

Why were distillate stocks low?

The low stock situation is worldwide and is not limited to distillate. Both product and crude oil stocks are low.

Recently, mainly as a result of OPEC cutbacks in crude oil production and rebounding global oil demand, there has been a shortfall in crude, requiring the use of stocks to meet petroleum needs. Following the extremely low crude oil prices at the beginning of 1999, OPEC agreed to remove about 6% of world production from the market in order to work off excess inventories and bring prices back up. Crude and product stocks worldwide, including those in the U.S., have been drawn down to very low levels. This imbalance has been behind the climb in crude oil prices this year.

In particular, refinery distillate production was less than demand this fall as margins were squeezed by high crude oil prices. The higher demand was met with stocks, causing inventories to fall to their now low levels.

U.S. Distillate Market Briefing

02/04/2000

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Q&A on Distillate Price Increase

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Q&A on Distillate Price Increase

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Notes:

Q&A's on the Recent Distillate Price Increase

How might the distillate problem in the Northeast be resolved?

The current high prices in the Northeast are prompting increased production. Weekly data for the week of January 28 already show high sulfur distillate production (heating oil) up by 18% (185 thousand barrels per day.) Regional stocks will shift to areas of highest need, production from East Coast and Gulf Coast refineries will increase (capacity is available to produce more distillate), and if the problem persists, increased imports might be drawn to U.S. We can expect the situation to be resolved fairly quickly, in perhaps several weeks.

Refining capacity is adequate to meet the Northeast's distillate needs, but there are delays before new supply arrives in the areas of need -- perhaps several weeks. It takes time for refineries to change operations, and for product to move throught the system. Although high prices can speed the process, several factors can slow recovery:

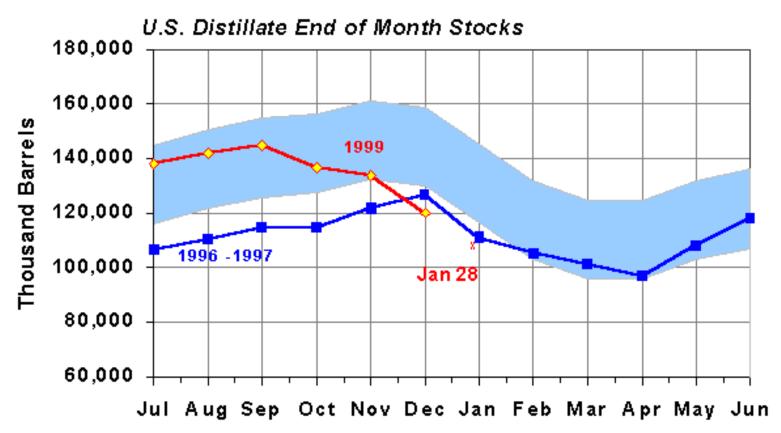
- Colder weather would quickly use up additional supply moving into the area, postponing relief for the price spike;
- Weather-related logistical problems could hinder shipments to affected areas; and
- Further refinery problems and/or long delays in recovery from current East Coast refinery outages would slow new supply from arriving.

Unfortunately, even when the current problem is resolved, we may see recurrences, as stocks are likely to stay low for the remainder of the winter. Additionally, even after the recent price spike recedes, high crude oil prices will keep heating oil prices well above last year's. East Coast retail prices as of January 17 at \$1.21 per gallon were more indicative of the market before the distillate price spike, yet were 33 cents higher than prices the same time last year as a result of the high crude oil prices.

While it has been suggested that the Strategic Petroleum Reserve (SPR) be used to remedy this distillate price runup, it would not do much to relieve the distillate squeeze that is occurring. An SPR release might ease crude prices briefly, but the recent large increase in distillate prices was mainly due to lack of distillate product, which the SPR would not resolve.



Low Distillate Stocks Set Stage for Price Volatility



Bouros: EIA



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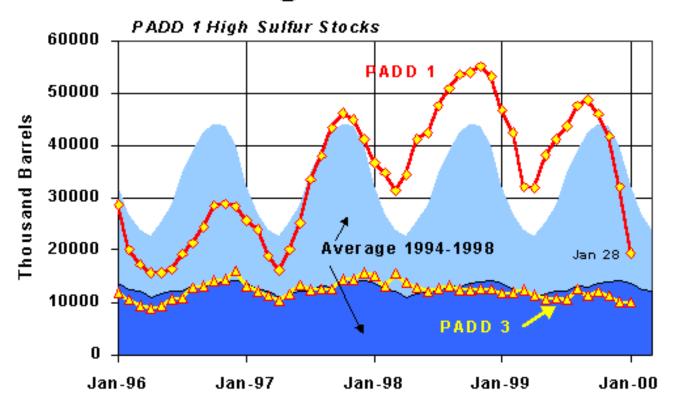
- Along with the recent rise in crude oil prices, low stocks of distillate fuels have left markets in a vulnerable position.
- As we went into our two biggest distillate demand months, January and February, U.S. distillate stocks were very low -- particularly on the East and Gulf Coasts. The East Coast is the primary heating oil region, and it depends heavily on production from the Gulf Coast as well.
 - O Distillate stocks in the U.S. and Europe were in surplus supply as recently as October, but distillate stocks showed atypical drops in October and November and declined more sharply than usual in December.
 - O December stocks closed below the low levels of 1996. The unusual draw down, in contrast to the more normal building pattern shown in the fall of 1996, resulted in distillate inventory

levels about 7 million barrels lower than end-December 1996.

• Low stocks in the winter create the potential for price volatility. In this situation, unexpected high demand from cold weather or sudden loss of supply can quickly deplete low stocks in local areas for a time, requiring unusual movement of stock from other areas. As buyers search for product, they bid prices up rapidly, which attracts product, but the time lag can cause prices to rise very high briefly before product arrives.



PADD 1 Heating Oil Stocks Low





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- The biggest decline in U.S. stocks has taken place in the heating oil markets of PADD 1 (East Coast), which consumed 86 percent of the nation's heating oil in 1998. It also is the region with the largest heating oil stocks.
 - O PADD 1 was down over 13 million barrels on January 28 from the 5-year average stock level for end of January;
 - O PADD 3, which supplies PADD 1, was down almost 4 million barrels from its 5-year January ending levels.
- During the week ending January 21, weather in New England was nearly 20% colder than normal for that time of year. The cold weather on top of low stocks was pushing prices up, with the forecast for temperatures to remain below normal in the Northeast until early February. It was reported that

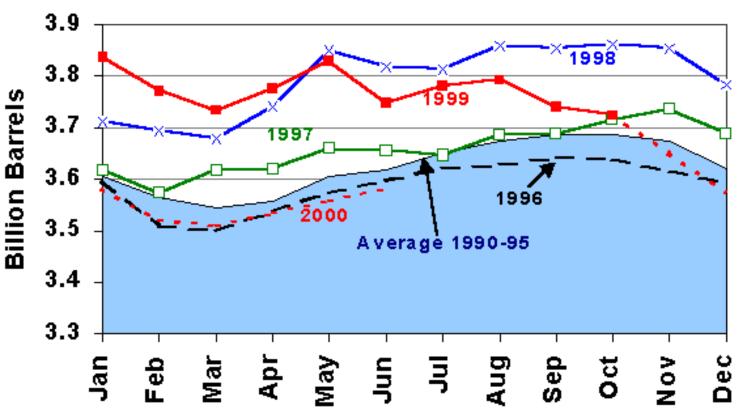
utilities were buying distillate for peaking power, and, along with commercial and industrial consumers, for replacing interruptible natural gas contracts, adding to the market pressure. Furthermore, apparently some barge deliveries were being delayed because of storms. Finally, refinery outages at the end of the week sent more buyers into the market, and prices spiked.

- New supply has still not caught up with demand and stocks continued to drop through the end of January.
- Low sulfur distillate (diesel) stocks in the Northeast are closer to average levels than heating oil (only about 2 million barrels below average as of January 28), but this could change, too, if there is much delay in new heating oil supply.
- What caused us to move from ample stocks in September to today's very low levels?



OECD Stocks Reflect S/D Imbalance

OECD Petroleum Inventories



Source: EIA and IEA



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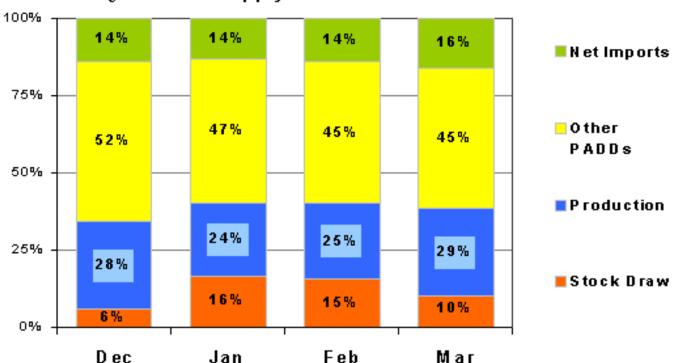
- The crude market is the major factor behind today's low stocks.
- Recently, there has been more petroleum demand than supply, requiring the use of stocks to meet petroleum needs. Following the extremely low crude oil prices at the beginning of 1999, OPEC agreed to remove about 6% of world production from the market in order to work off excess inventories and bring prices back up.
- OPEC production cutbacks have caused stocks worldwide, including those in the U.S., to be drawn down to very low levels. This imbalance has been behind the climb in crude oil prices this year.
- In particular, refiners drew distillate stocks down in the fall (along with crude oil and other products), rather than build, as crude supply lagged and margins were squeezed by high crude oil prices.

• We are now in the middle of winter -- the usual high point in world demand -- with low stocks. Late in 1999, OPEC had been indicating it might relax its production quotas if stocks reached 1996 levels, but in early January, members indicated they intended to maintain their cutbacks at least through March, and possibly through June or later. This firm stance along with cold weather increasing demand is behind the recent crude price surge. WTI broke \$30 per barrel briefly the week ending January 21, but eased back during the week ending January 28 as OPEC gave new signs it might ease up on the cutbacks in March.



Distillate Stocks Are Important Part of Northeast Winter Supply

Average PADD 1 Supply as Percent of Demand





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- Stocks are normally an important part of PADD 1 winter distillate supply. Over the last 5 years, they provided about 15% of supply during the peak winter months of January and February. One of the biggest stock draws we have seen was in January 1994, when a prolonged severe cold spell required 666 MB/D of stocks, covering almost 36% of demand for that month.
- PADD 1 refineries meet about 25% of demand during January and February, and other PADDs -- mostly PADD 3 -- supply 45-50% of the region's needs.
- Imports generally supply about as much as stocks during the peak months, with most of the product coming from Canada, the Virgin Islands and Venezuela.
- Percentages do not tell the whole story. Stocks supply close to 300 MB/D on average in January and a little less in February. That 300 MB/D is 9 million barrels in one month. At current stock levels of

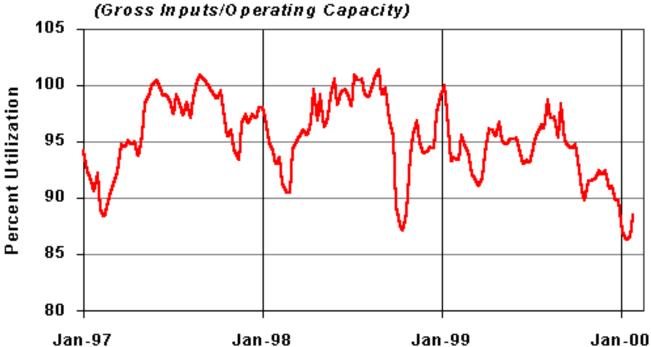
38 million barrels, we could draw down stock at the normal rate for more than 1 month before hitting the minimum stock levels ever seen in the Northeast. So what is the problem? Not all of the stock is located where it needs to be, and the market worries about colder than average weather requiring even more stocks, as in January 1994.

• Fortunately refinery capacity is available for surge production in the Gulf Coast and elsewhere to relieve the supply situation, but it may take a week or two for product to arrive.



Distillate Problem Likely to be Resolved Soon, But Recurrence Possible

U.S. Refinery Utilization





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- Capacity is adequate to meet the increased demand. The current high prices in the Northeast have prompted increased heating oil production. During the week ending January 28, high sulfur distillate production increased 18% or 185 thousand barrels per day. Still, this product must be moved to the areas needing the supply, and weather is hindering coastal terminals from being re-supplied. As the problem persists, imports may also increase.
- Although high prices can speed the process, several factors can slow recovery:
 - O Colder weather would quickly use up additional supply moving into the area, postponing relief for the price spike;
 - O Weather-related logistical problems could hinder shipments to affected areas; and

- Further refinery problems and/or long delays in recovery from current East Coast refinery outages would slow new supply from arriving.
- Prices plummeted January 31, closing at 82 cents per gallon, but rose again to to \$1.40 on Thursday. Friday afternoon, spot prices were at \$1.77 as logistical problems continued to hinder new supply. The spot price increases are being seen at the retail level, although retail price movements are usually a little slower and spread out over time. Still the severity of this spot price increase is causing dramatic changes at retail.
- Once the current price spike is relieved, stocks are likely to remain low for the rest of the winter, and we could see more price volatility before the warm weather of spring sets in. Also keep in mind that even when the current price spike is resolved, high crude oil prices will keep heating oil prices much higher than they were last year. PADD 1 (East Coast) retail prices January 17 at \$1.21 were more indicative of the market before the latest crude oil price surge and did not reflect any impact from the spike. Yet they were 33 cents higher than prices the same time last year as a result of the high crude oil prices.





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Notes:

Q&A's on the Recent Distillate Price Increase

What is causing the distillate price runups in the Northeast?

New York Harbor spot prices closed on Friday, January 21, at over \$1.26. This was 50 cents higher than the previous Friday. Gulf Coast prices were only at \$0.83, indicating the problem is largely limited to the Northeast. Retail diesel prices reported Monday January 24 were up 31-35 cents over last Monday in the Mid Atlantic and New England areas. But they were only up 7 cents in the Midwest.

The distillate price surge in the Northeast resulted from a combination of low stocks, weather, and supply problems. During the week ending January 21, weather in New England was nearly 20 percent colder than normal for this time of year. The cold weather not only increased demand, but also caused supply problems, with frozen rivers and high winds hindering the arrival of new supply. This frigid weather, on top of low inventories, pushed prices up, with the forecast for temperatures to remain below normal in the Northeast until early February. It was reported that utilities were buying distillate both for peaking power and, along with industrial users, to substitute for interruptible natural gas supplies, further adding to the market pressure. Finally, refinery outages at the end of the week sent more buyers into the market as local supplies were temporarily drained, and prices spiked. New York Harbor spot heating oil prices peaked initially at \$1.36 per gallon on January 25, having more than doubled in the space of two weeks. Prices dropped to 82 cents on Monday, but climbed again to close February 3 at \$1.40. Prices were about \$1.77 the afternoon of February 4 as weather continued to interfere with the arrival of new supply.

Keep in mind, that up until the week ending January 21, distillate prices had been increasing over last winter, mainly as a result of crude oil price increases. Crude oil rose about 36 cents per gallon from its low point in mid February 1999 to the middle of January 2000 before the price spike. Over this same time period, New York Harbor spot heating oil had risen about 42 cents per gallon, reflecting both the crude price rise and a return to a more usual seasonal spread over the price of crude oil.